

DOCKET NO.: ISIS-5024
Application No.: 10/073,718
Office Action Dated: June 17, 2003

PATENT

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1 (Currently Amended). A compound comprising a plurality of linked nucleosides, wherein at least one of said nucleosides is functionalized at its 2'-position by attachment of a steroid molecule, a reporter molecule, ~~a non-aromatic lipophilic molecule, a reporter enzyme, a peptide, a protein,~~ a water soluble vitamin, ~~a lipid soluble vitamin,~~ an RNA cleaving complex, ~~a metal chelator,~~ a porphyrin, an alkylator, a hybrid photonuclease/~~intercalator,~~ or an aryl azide photo-crosslinking agent.

Claims 2-44 (Cancelled).

45 (Previously Added). A method of effecting cellular uptake of a compound having a plurality of linked nucleosides, comprising contacting an organism with said compound wherein said compound includes at least one heterocyclic base functionalized nucleoside having a steroid molecule, an enzyme, a peptide, a protein, or a vitamin, linked to the heterocyclic base of the nucleoside.

46 (Previously Added). The method of claim 45 wherein said heterocyclic base functionalized nucleoside is functionalized with a steroid molecule.

47 (Previously Added). The method of claim 45 wherein said heterocyclic base functionalized nucleoside is functionalized with an enzyme, a peptide or a protein.

48 (Previously Added). The method of claim 45 wherein said heterocyclic base functionalized nucleoside is functionalized with a vitamin.

49 (Previously Added). A method of effecting cellular uptake of a compound having a plurality of linked nucleosides, comprising contacting an organism with said compound wherein said compound includes at least one inter-strand nucleoside having a steroid molecule, an enzyme, a peptide, a protein, or a vitamin linked to an inter-strand linkage linking said inter-strand nucleoside to an adjacent nucleoside.

50 (Previously Added). The method of claim 49 wherein said inter-strand nucleoside has a steroid molecule linked to an inter-strand linkage linking said inter-strand nucleoside to an adjacent nucleoside.

51 (Previously Added). The method claim 50 wherein said inter-strand linkage is not the inter-strand linkage between the first and the second nucleosides at the 3' terminus or the 5' terminus of said oligonucleotide.

52 (Previously Added). The method of claim 49 wherein said inter-strand nucleoside has an enzyme, a peptide or a protein linked to an inter-strand linkage linking said inter-strand nucleoside to an adjacent nucleoside.

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53 (Previously Added). The method claim 49 wherein said inter-strand nucleoside has a vitamin linked to an inter-strand linkage linking said inter-strand nucleoside to an adjacent nucleoside.